

### REMARKS

The specification, drawings and claims have been amended to improve the style of this application.

In particular previous Fig. 2 has been canceled and previous Fig. 13 has been renumbered as new Fig. 12. The specification has been correspondingly amended. The specification has also been amended to remove any reference to a wave generator 17a. Instead the specification and drawings now only indicate that Fig. 13 shows a harmonic drive, such as harmonic drive gears known from U.S. Patent 4,840,090. Applicant has used this U.S. Patent as an indication of a typical harmonic drive gear. If the Examiner has any comments or suggestions for alternate showing of the harmonic drive gear, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

Independent claim 25 has been rejected as being obvious over Mabuchi in view of James.

New independent claim 28 sets forth a first gear part and a second gear part, which in the embodiment of Figure 1 are represented by reference numerals 4 and 3 respectively. Each of these gear parts are set forth as having a first and second side which in the embodiment of Figure 1 are the tops and bottoms of the respective gear parts respectively.

Claim 28 further sets forth an auxiliary rotation connection with first and second connection parts. In the embodiment of the drawings, one of the connection parts is shown by the shaft having reference number 15. The other connection part is the area around shaft 15. Applicant has reviewed Mabuchi and finds no teaching or suggestion of the auxiliary rotation connection set forth in claim 28. Therefore claim 28 defines over Mabuchi.

Furthermore, Applicant finds no suggestion or motivation which would lead a person of ordinary skill to modify Mabuchi to have an auxiliary rotation connection on the rotating unit of Mabuchi. It is only the present invention which discloses the benefit of having an auxiliary rotation in a gear arrangement. Applicant has found that having an auxiliary connection is beneficial for measuring parameters of the first and second gear parts, such as relative position or speed, or for adding additional torque, such as through a motor to help turn the gear parts. Since the prior art does suggest the auxiliary connection or indicate its usefulness, the prior art can not cause claim 28 to be obvious.

New claims 29 - 33 set forth further features of the auxiliary rotation connection, such as its position with respect to the drive input and additional features connected to the auxiliary rotation connection. These new features correspondingly are also not present in Mabuchi, and therefore these claims further define over Mabuchi.

The rejection equates the first part of claim 1 with element 4 of Mabuchi, and the second part of claim 1 with element 8 of Mabuchi.

The present invention is a gear arrangement which is very versatile. As described in the specification, movement can be removed from the gear arrangement either on part 3 or part 4. As shown in Fig. 1 and 6, it is possible to have part 3 fixed and to have part 4 with the drive shaft 7 and drive motor 6 rotate around axis 2. Such a situation could occur in a carousel, where element 3 is fixed to the base, and element 4 is attached to the carousel. The motor 6, then rotates with the carousel on the base around the axis 2.

Applicant has reviewed element 4, and finds no teaching nor suggestion of element 4 having any structure where movement of element 4 is removable on a side remote from a

second part which the rejection equates with element 8. Therefore element 4 of Mabuchi does not have all of the features of the first part in claim 1. Applicant notes that element 4 of Mabuchi appears to only serve as a support for idler gear 6 placed on the idler gear shaft 7 which meshes with ring gear 9 of element 8.

Claim 1 also sets forth that movement of the first part is additionally removable by means of a shaft. The rejection equates element 5 of Mabuchi with the shaft of claim 1. Applicant notes that Mabuchi indicates that shaft 5 is to be completely enclosed. Applicant finds no indication of any structure in Mabuchi where movement can be removed from element 4 through element 5. Therefore elements 5 and 4 of Mabuchi do not have the same relationship as the shaft and first part of claim 1. Claim 1 therefore further defines over Mabuchi.

Claim 18 has been rejected as being obvious over Mabuchi in view of Iwata. Applicant has reviewed Iwata, and notes that Iwata only discloses harmonic speed changers. Applicant finds no indication in Iwata of a first gear part having a shaft and having a power take off side. Therefore the combination of Iwata and Mabuchi also fails to anticipate all of the features of claim 18.


The present invention is a very versatile gear arrangement since power can be taken off of either one of two parts. Also because the shaft can be used as an additional power take off or even an additional power input, the present invention allows for a gear arrangement which can either have a sensor to measure the amount of rotation, or can have an additional motor for supplying additional torque. As one can see, the arrangement, especially in Fig. 6, shows that an additional motor or sensor can be connected between shaft 15 and part 3 so

that either the rotation can be measured as caused by the drive motor 6, or additional driving force can be applied in addition to drive motor 6. The gear arrangement of the present invention is therefore able to be used in many different applications.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted  
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Enclosed: Replacement Sheet

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